

46. (Original) A method of communicating data comprising:

transmitting a first signal from a communication controller to at least one network node including a first node, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller;

receiving the first request signal transmitted from the first node to the communication controller in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller;

transmitting a second signal from the communication controller to the first node in response to the first request signal, said second signal allocating at least one timeslot to the first node for transmitting the data to the communication controller; and

receiving the data transmitted from the first node to the communication controller in response to the second signal.

47. (Original) The method of claim 46, wherein the data received from the first node in response to the second signal is provided in the at least one timeslot allocated within the specified amount of bandwidth requested.

48. (Original) The method of claim 46, wherein the data comprises both message and protocol information.

49. (Currently Amended) A ~~The~~ method of ~~claim 46~~ communicating data comprising:

transmitting a first signal from a communication controller to at least one network node including a first node, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller;

receiving the first request signal transmitted from the first node to the communication controller in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller;

transmitting a second signal from the communication controller to the first node in response to the first request signal, said second signal allocating at least one timeslot to the first node for transmitting the data to the communication controller, wherein the said second signal includes including an address identifying the first node; and

receiving the data transmitted from the first node to the communication controller in response to the second signal.

50. (Original) The method of claim 46, wherein the data comprises a plurality of successive packets.

51. (Original) The method of claim 50, wherein the specified amount of bandwidth requested comprises a total number of the successive packets.

52. (Original) The method of claim 51, wherein each of the successive packets includes both message and protocol information.

53. (Original) The method of claim 46, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller.

54. (Original) The method of claim 46, further comprising the steps of:

transmitting a third signal from the communication controller to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second node to the communication controller in response to the third signal, wherein the second request signal is received from the second node by the communication controller after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

55. (Original) The method of claim 46, further comprising the steps of:

transmitting a third signal from the communication controller to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second node to the communication controller in response to the third signal, wherein the second request signal is received from the second node by the communication controller prior to transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data.

56. (Original) The method of claim 46, wherein said first request signal and said data are received by the communication controller via a first channel, and wherein the second signal and the first signal are transmitted to the first node via a second channel.

57. (Original) The method of claim 56, wherein the first channel is provided in a first frequency range, and wherein the second channel is provided in a second frequency range.

58. (Original) The method of claim 56, wherein the first request signal is provided on a separate frequency within the first frequency range than the data.

59. (Original) The method of claim 46, wherein said communication controller comprises a base station, and wherein said first node comprises a pager device.

60. (Original) The method of claim 46,

wherein the data received from the first node in response to the second signal is provided in the at least one timeslot allocated within the specified amount of bandwidth requested,

wherein the data comprises both message and protocol information,

wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller,

wherein the first request signal and the data are received by the communication controller via a first channel covering a first range of frequencies, and wherein the second signal and the first signal are transmitted to the first node via a second channel covering a second range of frequencies, and

wherein the second signal includes an address identifying the first node.

61. (Original) The method of claim 60, further comprises the steps of:

transmitting a third signal from the communication controller to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second node to the communication controller in response to the third signal, wherein the second request signal is received from the second node by the communication controller after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

62. (Original) A communication controller in a data network, the data network including a plurality of nodes, the communication controller comprising:

a processor;

a memory; and

at least one interface for communicating with the plurality of nodes,

wherein the memory stores code to cause the processor to provide a first signal for transmission through the interface to at least a first one network node, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller,

wherein the interface is configured to receive a first request signal from the first node in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller,

wherein the memory stores code to cause the processor to provide a second signal for transmission through the interface to the first node in response to the first signal, said second signal allocating at least one timeslot to the first node for transmitting the data to the communication controller, and

wherein the interface is configured to receive the data transmitted from the first node in response to the second signal.

63. (Original) The communication controller of claim 62, wherein the data received from the first node in response to the second signal is provided in the at least one timeslot allocated within the specified amount of bandwidth requested.

64. (Original) The communication controller of claim 62, wherein the data comprises both message and protocol information.

65. (Currently Amended) A The communication controller of claim 62 in a data network, the data network including a plurality of nodes, the communication controller comprising:

a processor;

a memory; and

at least one interface for communicating with the plurality of nodes,

wherein the memory stores code to cause the processor to provide a first signal for transmission through the interface to at least a first one network node, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller,

wherein the interface is configured to receive a first request signal from the first node in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller,

wherein the memory stores code to cause the processor to provide a second signal for transmission through the interface to the first node in response to the first signal, said second signal allocating at least one timeslot to the first node for transmitting the data to the communication controller, wherein the and said second signal includes including an address identifying the first node, and

wherein the interface is configured to receive the data transmitted from the first node in response to the second signal.

66. (Original) The communication controller of claim 62, wherein the data comprises a plurality of successive packets.

67. (Original) The communication controller of claim 66, wherein the specified amount of bandwidth requested comprises a total number of the successive packets.

68. (Original) The communication controller of claim 67, wherein each of the successive packets includes both message and protocol information.

69. (Original) The communication controller of claim 62, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller.

70. (Original) The communication controller of claim 62,

wherein the memory stores code to cause the processor to provide a third signal for transmission through the interface to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

71. (Original) The communication controller of 62,



wherein the memory stores code to cause the processor to provide a third signal for transmission through the interface to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface prior to transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data.

72. (Original) The communication controller of claim 62, wherein said first request signal and said data are transmitted to the communication controller via a first channel, and wherein the second signal and the first signal are transmitted to the first node via a second channel.

73. (Original) The communication controller of claim 72, wherein the first channel is provided in a first frequency range, and wherein the second channel is provided in a second frequency range.

74. (Original) The communication controller of claim 73, wherein the first request signal is provided on a separate frequency within the first frequency range than the data.

75. (Original) The communication controller of claim 62 wherein said communication controller comprises a base station, and wherein said first node comprises a pager device.

76. (Original) The communication controller of claim 62,

wherein the data received in response to the second signal is provided in the at least one timeslot allocated within the specified amount of bandwidth requested,

wherein the data comprises both message and protocol information,

wherein the second signal includes an address identifying the first node,

wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller, and

wherein said first request signal and said data are transmitted to the communication controller via a first channel covering a first range of frequencies, and wherein the second signal and the first signal are transmitted to the first node via a second channel covering a second range of frequencies.

77. (Original) The communication controller of claim 76,

wherein the memory stores code to cause the processor to provide a third signal for transmission through the interface to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

78. (Original) A first network node in a data network, the data network including a communication controller and a plurality of nodes, the first network node comprising:

a processor;

a memory; and

at least one interface for communicating with the communication controller,

wherein the interface is configured to receive a first signal from the communication controller, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller,

wherein the memory stores code to cause the processor to provide a first request signal for transmission through the interface to the communication controller in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the network node for transmitting data from the first network node to the communication controller;

wherein the interface is further configured to receive a second signal from the communication controller, said second signal allocating at least one timeslot to the first network node for transmitting the data to the communication controller; and

wherein the memory stores code to cause the processor to provide for transmission of the data through the interface to the communication controller in response to the second signal.

79. (Original) The first network node of claim 78, wherein the data transmitted from the first network node is provided in the at least one timeslot allocated within the specified amount of bandwidth requested.

80. (Original) The first network node of claim 78, wherein the data comprises both message and protocol information.

81. (Currently Amended) A The first network node of claim 78 in a data network, the data network including a communication controller and a plurality of nodes, the first network node comprising:

a processor;

a memory; and

at least one interface for communicating with the communication controller,

wherein the interface is configured to receive a first signal from the communication controller, the first signal including information relating to a specific timeslot in which the first node may transmit a first request signal to the communication controller,

wherein the memory stores code to cause the processor to provide a first request signal for transmission through the interface to the communication controller in response to the first signal, said first request signal including a request for a specified amount of bandwidth to be allocated to the network node for transmitting data from the first network node to the communication controller;

wherein the interface is further configured to receive a second signal from the communication controller, said second signal allocating at least one timeslot to the first network node for transmitting the data to the communication controller, wherein the and said second signal includes including an address identifying the first network node; and

wherein the memory stores code to cause the processor to provide for transmission of the data through the interface to the communication controller in response to the second signal.

82. (Original) The first network node of claim 78, wherein the data comprises a plurality of successive packets.

83. (Original) The first network node of claim 82, wherein the specified amount of bandwidth requested comprises a total number of the successive packets.

84. (Original) The first network node of claim 83, wherein each of the successive packets includes both message and protocol information.

85. (Original) The first network node of claim 78, wherein the specific time slot in which the first network node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller.

86. (Original) The first network node of claim 78,

wherein the interface is configured to receive a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the

interface after receipt of the second signal allocating the at least one timeslot to the first network node for transmitting the data, and prior to transmission of the data from the interface in response to the second signal.

87. (Original) The first network node of claim 78,

wherein the interface is configured to receive a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which the second network node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface prior to receipt of the second signal allocating the at least one timeslot to the first network node to transmit the data.

88. (Original) The first network node of claim 78, wherein said first request signal and said data are transmitted to the network node via a first channel, and wherein the second signal and the first signal are transmitted to the first network node via a second channel.

89. (Original) The first network node of claim 88, wherein the first channel is provided in a first frequency range, and wherein the second channel is provided in a second frequency range.

90. (Original) The first network node of claim 89, wherein the first request signal is provided on a separate frequency within the first frequency range than the data.

91. (Original) The first network node of claim 78, wherein said communication controller comprises a base station, and wherein said network nodes comprise pager devices.

92. (Original) The first network node of claim 78,

wherein the data transmitted from the first network node is provided in the at least one timeslot allocated within the specified amount of bandwidth requested,

wherein the data comprises both message and protocol information,

wherein the second signal includes an address identifying the first network node,

wherein the specific time slot in which the first network node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller, and

wherein said first request signal and said data are transmitted to the network node via a first channel covering a first range of frequencies, and wherein the second signal and the first signal are transmitted to the first network node via a second channel covering a second range of frequencies.

93. (Original) The first network node of claim 92,

wherein the interface is configured to receive a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the

interface after receipt of the second signal allocating the at least one timeslot to the first network node for transmitting the data, and prior to transmission of the data from the interface in response to the second signal.

94. (Original) A method of communicating data comprising:

receiving a first signal transmitted from a communication controller at a first network node, the first signal including information relating to a first timeslot in which the first node may transmit a first request signal to the communication controller;

transmitting from the first node a first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller;

receiving a second signal from the communication controller transmitted to the first node in response to the first request signal, said second signal including information specifying at least one timeslot allocated to the first node for transmitting the data to the communication controller; and

transmitting the data from the first node to the communication controller in response to the second signal.

95. (Original) The method of claim 94 wherein the data transmitted from the first node is provided in the at least one timeslot allocated within the specified amount of bandwidth requested.

96. (Original) The method of claim 94, wherein the data comprises both message and protocol information.



97. (Currently Amended) A ~~The method of claim 94~~ of communicating data comprising:

receiving a first signal transmitted from a communication controller at a first network node, the first signal including information relating to a first timeslot in which the first node may transmit a first request signal to the communication controller;

transmitting from the first node a first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller;

receiving a second signal from the communication controller transmitted to the first node in response to the first request signal, said second signal including information specifying at least one timeslot allocated to the first node for transmitting the data to the communication controller, wherein the and said second signal includes including an address identifying the first node; and

transmitting the data from the first node to the communication controller in response to the second signal.

98. (Original) The method of claim 94, wherein the data comprises a plurality of successive packets.

99. (Original) The method of claim 98, wherein the specified amount of bandwidth requested comprises a total number of the successive packets.

100. (Original) The method of claim 99, wherein each of the successive packets includes both message and protocol information.

101. (Original) The method of claim 94, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller.

102. (Original) The method of claim 94, further comprising the steps of:

receiving a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second network node in response to the third signal, wherein the second request signal is received after receipt of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior transmission of the data from the first node.

103. (Original) The method of claim 94, further comprising the steps of:

receiving a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second network node in response to the third signal, wherein the second request signal is received from a second node prior to receipt of the second signal allocating the at least one timeslot to the first node for transmitting the data.

104. (Original) The method of claim 94, wherein said first request signal and said data are transmitted to the network node via a first channel, and wherein the second signal and the first signal are transmitted to the first node via a second channel.

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105. (Original) The method of claim 104, wherein the first channel is provided in a first frequency range, and wherein the second channel is provided in a second frequency range.

106. (Original) The method of claim 105, wherein the first request signal is provided on a separate frequency within the first frequency range than the data.

107. (Original) The method of claim 94, wherein said communication controller comprises a base station, and wherein said first node comprises a pager device.

108. (Original) The method of claim 94,

wherein the data transmitted from the first node is provided in the at least one timeslot allocated within the specified amount of bandwidth requested,

wherein the data comprises both message and protocol information,

wherein the second signal includes an address identifying the first node,

wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller, and

wherein said first request signal and said data are transmitted to the network node via a first channel covering a first range of frequencies, and wherein the second signal and the first signal are transmitted to the first node via a second channel covering a second range of frequencies.

109. (Original) The method of claim 108, wherein the method further comprises the steps of:

C 1 receiving a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller, and

receiving the second request signal transmitted from the second network node in response to the third signal, wherein the second request signal is received after receipt of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior transmission of the data from the first node.

110. (New) The method of claim 49, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller.

111. (New) The method of claim 110, wherein the data comprises both message and protocol information.

112. (New) The first network node of claim 110, wherein the data comprises a plurality of successive packets.

113. (New) The method of claim 49, further comprising the steps of:

transmitting a third signal from the communication controller to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller; and

receiving the second request signal transmitted from the second node to the communication controller in response to the third signal, wherein the second request signal is received from the second node by the communication controller after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

114. (New) The communication controller of claim 65, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after transmission of the first signal from the communication controller.

115. (New) The communication controller of claim 114, wherein the data comprises both message and protocol information.

116. (New) The communication controller of claim 114, wherein the data comprises a plurality of successive packets.

117. (New) The communication controller of claim 65,

wherein the memory stores code to cause the processor to provide a third signal for transmission through the interface to a second node, the third signal including information relating to a second specific timeslot in which the second node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface after transmission of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior to receipt of the data transmitted from the first node.

118. (New) The first network node of claim 81, wherein the specific time slot in which the first network node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller.

119. (New) The first network node of claim 118, wherein the data comprises both message and protocol information.

120. (New) The first network node of claim 118, wherein the data comprises a plurality of successive packets.

121. (New) The first network node of claim 81,

wherein the interface is configured to receive a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller, and

wherein the interface is configured to receive the second request signal transmitted from the second node in response to the third signal, wherein the second request signal is received from the second node by the interface after receipt of the second signal allocating the at least one timeslot to the first network node for transmitting the data, and prior to transmission of the data from the interface in response to the second signal.

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122. (New) The method of claim 97, wherein the specific time slot in which the first node may transmit the first request signal is one of a series of time slots occurring repeatedly after receipt of the first signal from the communication controller.

123. (New) The method of claim 122, wherein the data comprises both message and protocol information.

124. (New) The method of claim 122, wherein the data comprises a plurality of successive packets.

125. (New) The method of claim 97, further comprising the steps of:

receiving a third signal from the communication controller, the third signal including information relating to a second specific timeslot in which a second network node may transmit a second request signal to the communication controller; and

CI receiving the second request signal transmitted from the second network node in response to the third signal, wherein the second request signal is received after receipt of the second signal allocating the at least one timeslot to the first node for transmitting the data, and prior transmission of the data from the first node.

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